

ABSTRACT

A device for use in a molten metal pump helps alleviate jams between a rotating rotor and stationary inlet. The device includes an inlet structure including one or more openings and a displacement structure that preferably includes one or more rotor blades. The inlet structure and displacement structure are connected to one another (preferably, but not necessarily, as a unitary piece), thus enabling them both to rotate. A pump including the device is also enclosed. The invention further includes a bearing surface for an impeller or for a device according to the invention, wherein the bearing surface includes grooves that help reduce molten metal build up between the bearing surface of the impeller or device and the bearing surface of a pump chamber.